

PEANUTS *for* PROFIT

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PEANUTS *for* PROFIT

In 1911 the production of cotton in Alabama was 1,716,000 bales. In 1916, after the boll weevil had completely invaded the State, only 525,000 bales were produced—a decrease of nearly 64 per cent in the production of cotton.

In 1914 Georgia produced 2,718,000 bales of cotton. In 1916, after two years of invasion, only 1,845,000 bales were produced—a decrease of 873,000 bales. With a 64 per cent decrease in the cotton crop of Georgia, it will be only a few years until the cotton production of that State will drop to less than 1,000,000 bales—a total annual loss to the two States of 2,900,000 bales.

With cotton worth 11 cents a pound and cottonseed meal worth \$22.00 a ton, this would represent an annual monetary loss of \$192,000,000 to the two States.

The farmers of these two States cannot afford to suffer a two hundred million dollar loss. Neither can the railroads, or the merchants, or the consumers. Some crop will have to be grown to fill the gap—to provide a ready-money crop that will take the place of cotton on the farm. Soy beans and peanuts, which produce edible and other oils, as well as cake or meal suitable for feed or fertilizer, are the most promising substitutes.

PEANUTS ARE A READY-MONEY CROP

There is a constantly increasing demand for peanut oil as a food product. Cottonseed oil has always had a sale as a food product. It is used in making substitutes for lard, in the vegetable lards, in packing sardines, and other fish, in setting olives, as cooking and salad oil, as an emulsion for medical purposes, as a substitute for sweet oil and for many other purposes. In 1914, when the cottonseed oil industry was at its height, over 193,000,000 gallons of cottonseed oil were made in the United States, with a value of \$81,000,000. The demand for cottonseed oil is still there. But the boll weevil has seriously reduced the supply.

In peanuts, and in peanut oil, we have a product that has proven a satisfactory substitute. There will always be a demand for them. Peanuts can be grown at a cost of from \$18.00 to \$20.00 an acre as compared to a cost of \$20.00 for growing cotton. Peanuts can be grown on soils that would not produce a crop of corn or cotton, and will produce 80 and 90 bushels to the acre on good loamy cotton soils.

COTTONSEED OIL MILLS CAN CRUSH PEANUTS

There is nothing particularly new in the peanut oil mill. France and Germany have been developing the peanut oil industry for many years. In Marseilles alone there are 42 peanut oil mills with a crushing capacity of 650,000 tons annually. In our own Southern States there are several strictly peanut oil mills and a number of cottonseed oil mills have made the necessary changes in their machinery and are prepared to crush peanuts.

Any of the hydraulic oil mills can be adapted to peanuts by the installation of cleaning machinery and the proper adjustment of the grinding apparatus. The great majority of mills handling peanuts are equipped in this way—they grind cotton seed when they can get it, and peanuts when they cannot get cotton seed.

Peanuts are usually ground whole, with their "jackets" on. A ton of whole nuts will yield approximately—

Oil	525 pounds
Cake	1,355 pounds
Loss	120 pounds
	2,000 pounds

THE MILLER'S PROFIT

Now, if peanuts are to take their proper place as an oil crop, they must be able to compete with cotton on the market. There must be a reasonable profit for both the farmer and the manufacturer. Can the peanut offer such a profit?

Last year saw the highest price of cotton. The price of cottonseed products was correspondingly high. The combination of the European war and the short crop has produced results that may never again be realized—that will certainly not be realized when conditions return to normal.

It will be necessary, therefore, in order to arrive at any conservative estimate, to make our comparisons during normal conditions.

A ton of cottonseed will make, on the average—

Crude oil.....	300 pounds
Meal and cake.....	914 pounds
Hulls	578 pounds
Linters	68 pounds
Loss	140 pounds
	2,000 pounds

The average value of these products for the six years prior to the European war was—

Crude oil, per cwt.....	\$ 5.42
Meal and cake, per ton.....	24.95
Hulls, per ton.....	7.44
Linters, per pound.....	.02

At these prices, a ton of cotton seed would be worth—

Crude oil, 300 pounds at 5.42 per cwt.....	\$16.26
Meal and cake, 914 pounds at \$24.95 per ton...	11.40
Hulls, 578 pounds at \$7.44 per ton.....	2.14
Linters, 68 pounds at 2 cents per pound.....	1.36
Total.....	\$31.16

How much is a ton of peanuts worth to the miller?

Hitherto the peanut oil industry has been conducted on a limited scale in this country. Most of the peanut oil on the market has been imported oil of exceptionally high quality and price. Since the establishment of the industry conditions have been abnormal and the price too high to warrant any comparisons.

Of this much, however, we can be certain. The price of peanut oil, in competition as it is with cottonseed oil, will always be governed by the price of that commodity. In other words, the miller will never be able to sell peanut oil much above the price of cottonseed oil. With this rule to guide us, let us apply the average price paid for cottonseed products to our peanut products.

The value of a ton of peanuts—

Oil, 525 pounds at \$5.42 per cwt.....	\$28.45
Cake, 1,355 pounds at \$18.40 per ton.....	12.47
Hulls and dirt.....	.00
Total.....	\$40.92

THE FARMER'S PROFIT

The average production of cotton per acre in Georgia, according to the last census was—

Lint, 200 pounds
Seed, 400 pounds

The average price received by the producer for this crop during the five seasons ending in 1914-15 was—

Cotton, per pound.....	11.09c
Seed, per ton.....	\$22.04
200 pounds lint at 11.09c per pound.....	\$22.18
400 pounds seed at \$22.04 per ton.....	4.50
Total per acre.....	\$26.68
Cost production (10c per pound).....	20.00
Net return per acre.....	\$ 6.68

In Georgia and Alabama peanuts have always been grown as a forage crop. No particular attention has ever been given to their planting, cultivation or harvesting. Hence the average yield has been low—16 bushels to the acre for Georgia and 15.6 bushels to the acre for Alabama.

The average yield per acre in North Carolina and Virginia, however, where the peanut has been grown as a money crop, is 30.6 and 29.5 bushels respectively.

It would seem, and the experience of good farmers show, that with a little care in planting and cultivating we may expect peanuts to average at least 40 bushels, or 1,200 pounds to the acre.

The value of a ton of cotton seed to the oil miller is, as we have seen, \$31.16. Peanuts produce more meal and more oil than cotton seed, and should have a value, as we have just shown, of at least \$40.92 to the miller. As the value of a ton of peanuts is about \$10.00 more than that of a ton of cotton seed, the miller can well afford to pay \$10.00 more a ton for his peanuts and still make the same profit.

Now, the average price paid by millers for cotton seed during the five seasons preceeding 1915 was \$24.19 per ton. Adding \$10.00 to this price, we find that the oil miller can afford to pay about \$35.00 a ton for peanuts.

How much profit does this give the farmer?

An acre of peanuts will yield 1,200 pounds of nuts, and between 800 and 1,000 pounds of hay if properly handled. This hay should be worth, at a conservative estimate, \$15.00 a ton.

1,200 pounds of peanuts at \$35.00 a ton.....	\$21.00
1,000 pounds of hay at \$15.00 a ton.....	7.50
Total.....	\$28.50
Less cost of production.....	20.00
Net return per acre.....	\$ 8.50

How does the miller's profit from peanuts compare with that from cotton seed?

Price received for cottonseed products.....	\$31.16
Price paid for cotton seed.....	24.19
Margin.....	\$ 6.97
Price received for peanut products.....	\$40.92
Price paid for peanuts.....	35.00
Margin.....	\$ 5.92

It must be remembered that these are only rough estimates at best. With the increased knowledge of cultivation and the improved methods of milling that are bound to come—with the decrease in the supply of cotton seed and the subsequent increase in the demand for oil—there will undoubtedly be a larger profit for both the farmer and the miller.

As it is there is practically as large a profit to be obtained from peanuts as from cotton, and there will always be a sufficient demand for oil to warrant building up the industry.

THE DEMAND FOR PEANUTS

Hitherto there has always been enough cottonseed oil to meet the demand. But with the ever-increasing inroads of the boll weevil upon the cotton crop there has come a shortage of cotton seed and cottonseed oil that can be relieved by the use of peanut meal and peanut oil.

It is not at all likely that there will ever again be enough cottonseed oil made to meet the demand for it. The uses of vegetable oil are constantly increasing. The oil mills are installing peanut machinery on every hand. It is no longer a question of whether there will be a market for the peanut crop. It is a question of whether there will be enough peanuts to supply the market demands.

WHAT OIL MILLERS SAY

"There were several thousand acres of peanuts planted in this section last year," says Mr. Worsham, manager of the Ft. Gaines mill of the Southern Cotton Oil Company, "and the yields seem to have been good, farmers making from 10 to 90 bushels to the acre. The average price paid by the oil mills for peanuts was 4c per pound, or \$1.20 per 30-pound bushel.

"We crushed about 150 tons of peanuts and the results were satisfactory. We will be in the market for any quantity of peanuts next season. We saved the bulk of the peanuts purchased this season for seed, as the farmers seemed to have sold up too close. There will be a great many more peanuts planted next season than were planted this season."

"There were not enough peanuts planted in this section last year to supply the demand for planting purposes this coming spring," says Mr. Ragan, manager of the Dawson mill of the Southern Cotton Oil Company. "I expect there will be around 25 or 30 cars of peanuts shipped into this county for planting purposes. I estimate that the farmers will reduce their cotton acreage to seven or eight acres to the plow and plant ten or twelve acres in peanuts.

"We bought only a few peanuts last season—about 20 tons, at an average price of \$65.90 a ton. The outlook for peanuts for the coming season is very encouraging, and we expect to do a big business in them next fall."

Mr. S. J. Cassels, district manager of the Southern Cotton Oil Company at Montgomery, Alabama, says:

"We have bought peanuts quite extensively this season. The average price we have paid has probably been 3½c per pound. We have our mills equipped for handling peanuts, and if larger quantities are planted, a ready market will be found at our mills at Montgomery, Sylacauga, Union Springs, Andalusia, and Dothan."

Mr. Lamar, in charge of the Atlanta District of the Southern Cotton Oil Company, says:

"We will certainly be in the market for peanuts next year. The situation this year was complicated by the fact that peanuts brought a higher price for planting purposes than could be paid for them for manufacturing purposes. We started in buying peanuts and the price rose so rapidly that we were finally able to sell them out for planting purposes at a better profit than we could have made from manufacturing them.

"I do not believe that any such prices as have been paid for peanuts this year can be expected next year, but I can see no reason why conditions should not be such that a good price could be paid for them—one that would enable the farmer to make money. Of course, it is possible that in these unsettled times conditions may be such that prices equal to or better than this year's price can be paid.

"There is no question about the oil mills being able to handle peanuts with a very slight readjustment of their machinery, in a very satisfactory manner."

"The boll weevil took a heavy toll from the cotton crop last year," says Mr. Linthicum, of the Empire Cotton Oil Company, "and we began to realize during the early fall months that if our mills were to continue in operation it would be necessary to interest the farmers in the growing of some other oil-producing crop.

"Some months ago we began investigating the possibilities in peanuts, and we believe that the farmers can grow peanuts for the market with a profit. We have spent considerable time creating an interest among the farmers, and very naturally, we shall be in the market for peanuts next season at whatever they are worth.

"At our Bainbridge mill we have bought and crushed a few peanuts during the present year, purchasing the nuts at prices ranging all the way from \$50.00 to \$70.00 a ton, depending upon the quality of the nuts and the value of meal and oil at the time of purchase.

"The raising of peanuts, we find, is just like the raising of any other crop. Some farmers do not make over 8 or 10 bushels of corn to the acre, while others will make as much as 40 or 50 bushels. Likewise we find that some farmers did not make over 20 to 25 bushels of peanuts to the acre this year, while some made 80 and 90 bushels. The average farmer produces about 50 bushels of peanuts to the acre.

"The indications are that there will be a considerable amount of peanuts raised in South Georgia this year. Some farmers are going to raise peanuts on a rather extensive scale, but most of the farmers are figuring on planting about five acres to the plow for commercial purposes.

"We have bought White Spanish peanuts to sell for planting purposes, and are selling a good many of these nuts daily. The supply merchants are also receiving peanuts in carload quantities to be sold to the farmers for planting purposes.

"While the farmers of Telfair County have never grown any peanuts for sale, a great many of the leading farmers are planning to plant peanuts the coming year, and a considerable acreage will be devoted to them.

"In this section a crop of White Spanish peanuts can be planted and matured successfully after a crop of oats has been harvested, and by getting two crops from the same land, it should be a very profitable venture for the farmers.

"Our mill at McRae has never crushed any peanuts, but will be in the market the coming season, and will purchase all the sound nuts that are offered at a reasonable price.

"We arranged our Quitman mill in 1915 to crush peanuts. We only made a small crush, but found it to be very satisfactory.

"We look for a considerable increase in peanut acreage in this section next year, and are urging all farmers to plant peanuts for the mill. Of course we cannot say at this time what the price will be, but we are assuring farmers that we will purchase them at a price that will be in keeping with the price of peanut products, and we see no reason why there should not be equally as much money in raising peanuts as in most any other crop on the farm.

"Our South Georgia lands are adapted to peanuts, and we believe that it is going to be a coming industry."

"The Edison Oil Company built an expeller cold press mill here last year," says Mr. C. J. Rambo, of the Edison Oil Company at Edison, Ga., "and operated exclusively on peanuts during the season. The venture has been satisfactory, both as to the mechanical details of working the nuts, and as to results from the sale of the products.

"We believe the peanut industry has come to stay. Growing them can undoubtedly be made very profitable for the farmers, and turning them into oil and meal for sale is a very easy matter. We advise planting peanuts whether the boll weevil is present or not, for they can be made a greater source of profit than cotton.

"We will be in the market next season for six thousand tons of White Spanish peanuts."

To quote the Proctor & Gamble Company, of Cincinnati, Ohio:

"There is a ready market for peanut oil, but only in competition with cotton oil. In other words, this oil is used for all purposes in an edible way, such as cooking oil, salad oil, for butterine manufacture and kindred lines for which cottonseed oil is generally used, and for this reason, it must compete in price.

"The production so far has been so limited that prices have ruled about the same as cotton oil and in some instances a fraction higher, but as the production increases, these oils must sell on the same level.

"As far as the purchase of this oil is concerned we are buyers of peanut oil and have handled considerable oil this year from crushing mills in the South at our Ivorydale, Ohio, refinery, and we will be in the market for this oil right along."

"We are new in the business," says Mr. T. W. Anderson, manager of the Seale Peanut Mill at Seale, Alabama, "but this season the proceeds from the peanut crop in this section has been very satisfactory to all concerned. Our mill is now in operation, and we are consuming daily about 12 tons of peanuts and realizing 80 gallons of oil and 1,350 pounds of meal to the ton—the oil being worth about 90c and the meal \$35 a ton.

"We are handling about 800 tons of peanuts this season, besides large quantities of corn, velvet beans, and peanut hay. We shall be in the market the next season for all of the above commodities grown in this section."

"We have purchased several hundred tons of peanuts this season," says Mr. A. V. Sawyer, of the Samson Cotton Oil Company, Samson, Alabama, "and have paid an average price of about 3¾c per pound, or \$75 a ton for them. Farmers who planted them last year in this section were well pleased with the results, and we are convinced that the crushing of peanuts is a practical proposition on hydraulic oil mills, with but slight mechanical changes.

"We believe that it would be a good idea for any section infested with boll weevils to plant a considerable acreage in peanuts, and would recommend the White Spanish and small runner varieties."

"During the past year," says Mr. A. L. Askew, of the Pioneer Peanut Milling Company, of Midland City, Alabama, "we installed a peanut oil mill, and we crushed peanuts for over two months, running day and night. There were a good many peanuts planted in our immediate section last season, and we bought all we could find. The acreage will be more than doubled this year, giving us an opportunity to run at least six months this coming season on peanuts. We paid an average price of about \$65.00 a ton for the White Spanish, which is the most desirable for oil.

"The peanut industry is here to stay. We had a message from Chicago the other day calling for two tanks of peanut oil for February, and five tanks for March and April delivery."

There is no question about the demand for peanut oil. It is already here. The oil mills are not only buying all the peanuts they can find in their sections, but they are even buying peanuts for seed, and distributing them to the farmers so that they may have a supply to run on next season.

It is an assured fact, then, that the farmer can sell all the peanuts he wants to raise another season. Will it pay him to raise them?

PRACTICAL EXPERIENCE

"My experience with peanuts is limited," says Mr. M. A. Bush, of Seale, Alabama, "but I am of the opinion that with our ordinary land, and with about 100 pounds of good guano and 200 pounds of lime per acre, one can safely count on 30 or 40 bushels.

"With reference to its cost in comparison with cotton and corn, would say that the cost of preparation and cultivation is about one-half of what would be required for a corn crop, or one-fourth of what would be required for a cotton crop.

"The peanut is adapted to a greater variety of soils than either corn or cotton, hence its economy. Now, on the better land, where we plant cotton, we can reasonably expect a yield of from 80 to 100 bushels of peanuts to the acre. The local peanut oil mill at Seale is grinding about 1,000 bushels a day, and the effect of this industry is very much in evidence in our county, as we are able to dispose of our peanuts and peanut hay at a profitable price.

"It is my opinion that the peanut is the most profitable crop that we can raise, and no crop that we grow in the South can be grown with so little risk."

"The average yield of peanuts is my section," says Mr. M. I. Gallupe, another practical farmer of Seale, "is about 35 bushels per acre. I planted

about 25 acres of peanuts on sandy land and the crop was very good. On this land I could not have made either cotton or corn. I can make a crop of peanuts for about one-fourth of the cost of making corn and cotton.

"I think the peanut and velvet bean the only things for this country, and am boosting them both."

"I think the peanut is one of the best crops we can grow on our sandy soils," says Mr. A. M. Green, of Clayton, Alabama. "I have been growing them for thirty-five years as a crop for hogs, and have never made a failure of the crop yet.

"Peanuts will make from 20 to 40 bushels to the acre at a cost about equal to that of corn. Land that will make 1,000 pounds of cotton to the acre will make from 40 to 50 bushels of peanuts, and I have made as high as 65 bushels to the acre. If I were to fertilize them the way I have to fertilize a 1,000 pound crop of cotton, I could make 75 bushels to the acre.

"I will say that the peanut is one of the best crops one can plant in this section of the country."

"We have been growing peanuts extensively for three years," says Mr. H. M. Sessions, of Enterprise, Alabama, "and we are making an average of 40 bushels per acre. Some peanuts have been gathered here that averaged 100 bushels to the acre. Our peanuts cost us about 40c per bushel picked off the vine and ready for market."

"The peanut industry is proving very satisfactory," says Mr. J. H. Wilson, of Chancellor, Alabama. "We are producing from 40 to 60 bushels per acre—40 bushels without any fertilizer and between 50 and 60 bushels with 200 pounds of acid phosphate.

"These peanuts are produced and gathered ready for the market at about two-thirds the expense of cotton, when cotton could be made here."

"I had five acres of peanuts planted last year," says Mr. S. R. Radford, of Hartford, Alabama, "and will give you an estimate of the yield. It cost me \$33.00 for preparing, fertilizing, and cultivating the peanuts, and \$36.50 for gathering—a total expense of \$69.50 for 290 bushels. I received \$270.67 for the crop, making me a net profit of \$201.17 from five acres. In addition to this, I had the hay, which I think is about as good as any I have ever used.

"I believe that the peanut crop excels either corn or cotton for this section, and they will be planted everywhere another year."

"I planted about nine acres of thin sandy land to peanuts this year," says Mr. G. W. Chambers, of Dawson, Georgia, "and harvested 375 bushels, which I sold for \$1.25 per bushel.

"I feel reasonably sure that peanuts will be a good substitute for cotton as a cash crop in this section of Georgia."

"We operated a six-horse farm this year," says Mr. A. J. Singletary, of Blakely, Georgia, "planting 100 acres in White Spanish peanuts and 70 acres in corn and velvet beans.

"The entire labor cost, including the cultivation of the peanuts, corn, and velvet beans, and the gathering and picking of the peanuts, was about \$1,200. The seed peanuts cost \$250.00.

"We made 4,300 bushels of peanuts on the hundred acres, and sold them at 90c per bushel. We used no fertilizer whatever. You see, after paying the entire expense of the farm: peanuts, corn, and velvet beans, we had a net profit of about \$2,200, and in addition we have from 75 to 80 tons of peanut hay, which is selling at \$15.00 a ton, and the entire crop of corn and velvet beans.

"Now, if we had planted this same land in cotton without fertilizer, and had had no boll weevil to contend with, we could not have made more than 200 bales of cotton, and with the boll weevil as we have it, I have no idea that we could have made more than 10 or 12 bales.

"We had no experience whatever in the ground pea industry, and we waited until it was entirely too late before we began gathering them. If we had gathered them at the proper time, I have no doubt but that we would have gotten 1,500 bushels more. And we had another drawback—two months of excessive rain from the middle of June until the middle of August, so that about half of the peanuts failed to receive the last working.

"If it had not been for these two mishaps, we feel sure that we would have gotten at least an average of 65 bushels to the acre."

"I planted five acres of peanuts to the plow last year as an experiment," says Mr. M. M. Smith, of Ft. Gaines, Georgia, "I averaged 25 bushels to the acre without the use of any lime or fertilizer, and sold them at 4c a pound.

"I much prefer to raise peanuts at 4c than cotton at 15c. The expense of raising and gathering peanuts is about half that of cotton.

"Peanuts, velvet beans, corn and field peas have been our salvation. Also livestock. We are raising more and better livestock all the time."

"Our peanut crop proved very satisfactory last season," says Mr. W. T. Credille, also of Ft. Gaines. "Our land must be very suitable for this crop, for although the peanuts did not receive very much attention and suffered for working because of the heavy rains, my yield averaged about 35 bushels per acre.

"I believe we can do a lot better than this, as we learned a good deal from last year's crop. With lime and some fertilizer this crop should average about 50 bushels per acre. I used neither lime nor fertilizer last season, and found that I could make peanuts on our poorest and sandiest land.

"I do not see why peanuts should not be one of our most profitable money crops."

We shall close our case for the peanut with the evidence of one more Ft. Gaines farmer—Mr. J. W. Grimsby:

"With the little experience that I have had with peanuts as a commercial crop, and with the life-long experience that I have had with cotton, I can say that the comparison is great.

"This section, as you are doubtless aware, has been infested with the weevil and overrun with floods, and the cotton crop was almost a complete failure. If it had not been for peanuts and beans, the situation would have been much worse.

"I planted this year, all told, about 60 acres in peanuts, on the thinnest lands and without fertilizer, and threshed about 20 tons of them. I sold them for about \$80.00 a ton.

"I planted 500 acres in cotton and gather 40 bales, so you can imagine how I feel about cotton cultivation. In truth, leaving out the boll weevil entirely, I had rather grow peanuts as a money crop at 4c a pound than cotton at 15c."

FUTURE PRICES

Now, we want to say just a word about prices. The average price paid for peanuts last year was about \$68.00 a ton. The oil mills could afford to pay this price only because peanut oil and peanut meal were selling at good prices—80c a gallon for the oil and \$33.00 a ton for the meal.

Last year the farmer's profit ran something like this—

30 bushels peanuts at \$68.15 per ton.....	\$30.75
1000 pounds peanut hay at \$15.00 per ton.....	7.50
Total.....	<u>\$38.25</u>
Less cost of production.....	<u>20.00</u>
Net profit.....	\$18.25

While the miller's profit was something like this—

525 pounds of oil at 80c per gallon.....	\$52.80
1355 pounds meal at \$33.00 a ton.....	22.33
Selling price products.....	<u>\$75.13</u>
Cost peanuts	<u>70.00</u>
Margin.....	\$ 5.13

While peanut oil may sell for 80c a gallon next year, there is not a chance in the world that this price will be maintained indefinitely. Sooner or later there will be a drop to the normal level.

We do not want any one to go into the peanut business with the idea that peanut oil will always be worth 80c a gallon, and that peanuts are the original get-rich-quick crop. We don't want any one to get into the game now who will quit the minute the price starts to go down.

The peanut is merely a ready money crop that can be grown on suitable soils at a reasonable profit to the farmer and the oil miller. And when the market declines and the mills can only pay \$40.00 a ton for their nuts, we want our farmers to be prepared and to keep right on planting peanuts. They can be grown at a cost ranging from one-half to three-quarters that of cotton—and they will yield a profit equal to or a little above that of cotton.

THE CULTIVATION OF PEANUTS

SOILS

Peanuts require a moderately rich sandy loam. They should not be grown for oil on the red clay lands of Georgia, or on the alluvial black prairie lands of Alabama, or on any soils that are inclined to be stiff.

Peanuts require a dry soil. They will not produce a crop on land that is always wet or that is flooded during rainy weather.

And third, peanuts require a soil that is not acid. If the soil is sour, they will produce "pops," which are very objectionable to the miller and seriously affect the price.

LIME

As a matter of fact, most of the lighter sandy soils of the South are inclined to be acid, and the importance of using lime for peanuts can scarcely be over-emphasized. It would pay every farmer to apply at least a ton of ground limestone to the acre to his peanut field. On soils that are noticeably sour, two or three tons to the acre would not be too large an application.

Ground limestone should be applied broadcast either before or after breaking the land, and should always be mixed into the soil with a harrow or some similar implement.

THE SEED

There is but one variety of peanut for the oil industry, and that is the White Spanish. There is ten times the demand for this than there is for any other variety.

Home-grown seed should be secured wherever possible, but if you cannot get any, buy it from a locality with a similar climate and soils.

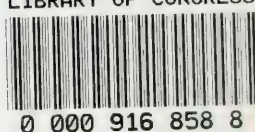
Be sure that your seed is mature. Immature seed is a frequent cause of poor stands and low yields, and its effects cannot be remedied. You can readily tell if the Spanish peanut is mature by breaking it open. If the inside of the shell is covered with a smooth white lining, the nut is immature and should not be planted. If the inside of the shell is brown, however, and dotted with darker brown spots, the nut is mature and ready to plant.

SOIL PREPARATION

Land for peanuts should always be broken flat. If the field is so wet that it must be hilled or bedded, the chances are that it is too wet to produce a good crop of peanuts, and it had better be put into something else.

Some peanut growers prefer to break the land a month before planting time, and harrow every week until they plant. This allows the weeds to come up and be killed before the peanuts are put in.

The rows should be laid off 20 or 30 inches apart, and the nuts dropped from 4 to 8 inches apart in the furrow. Don't make wide rows and drop the nuts 12 and 15 inches apart. The more nuts you can plant in the acre, the larger will be your yield.



FERTILIZER

Most soils will produce from 15 to 20 bushels of peanuts without any fertilizer at all. But when the yield per acre can be increased to 50, 60, 75, and even 90 bushels by the application of a little commercial fertilizer, it certainly behooves every peanut grower to use it. The fertilizer will pay for itself many times over each season.

Peanuts should receive about 300 pounds of 16 per cent acid phosphate and 150 pounds of cottonseed meal to the acre. The cottonseed meal can be put into the furrow, mixed with a scooter, and listed some time before planting, and the acid phosphate put in just before planting with a drill, or the cottonseed meal and acid phosphate can be mixed and put into the furrow together shortly before planting time. The former method is usually considered the best—the latter is less expensive.

When legumes have been grown on the peanut field, or when the soil is naturally rich in humus, it is often advantageous to leave out the cottonseed meal altogether, and use only 300 pounds of acid phosphate. But on the average run of soils the cottonseed meal gives the peanut a start in life, and increases the yield quite noticeably.

PLANTING

Small quantities of Spanish peanuts should be planted shelled, at the rate of one-half bushel to the acre. Large quantities should be planted in the shell, and at the rate of from 1½ to 2 bushels to the acre.

Planting should not be done while the ground is wet—the result will be a poor stand. It is best to wait until the ground has dried out properly, even though the planting date be a little late.

The one essential thing to be remembered in planting peanuts is that the ground should be made flat—the peanuts must come up on a level. Don't plant them in ridges or the pegs will fail to reach the ground. Don't plant them in a water furrow with the idea that you can work dirt in to them gradually and get nuts from the top to the bottom. The plants begin to bloom at the surface of the ground and slightly below it, and if you plow two inches or even one inch of dirt around them, you cover up these blooms and lose just that many peanuts.

Always plant peanuts on the level. Any good planter will do. Make a little drag about 20 inches long out of a piece of 4 by 6 scantling, with a row of nails across the bottom, and let it drag six inches behind the wheel. This will fill the furrow behind the planter, and let the plants come up level.

Peanuts should be planted, roughly speaking, between the first of April and the first of June. They can be planted after oats and other early spring crops, and have made successful yields when planted as late as the middle of July, but it is safer to plant between the dates mentioned.

Early planting should be made 1 to 1½ inches deep—later plantings 2 to 2½ inches deep to prevent drying out. It will always pay to soak the peanut seed for a few hours before planting, as this will hasten germination.

CULTIVATION

Cotton is cultivated to make it grow; peanuts are cultivated to keep them free from weeds and grass. Grass will hinder harvesting, it will pull the nuts off the vines as they are dug, and it will cause the nuts to keep and thresh badly. It will practically ruin a crop of peanuts if given a good start.

All cultivation should be flat and care should always be taken not to throw dirt over the vines. Examine your peanuts a few days after they have been planted, and as soon as they begin to sprout, run a Little Joe harrow over the rows to make a good smooth surface. Run a harrow over them as soon as the crust forms after every rain. Work further and further out as the vines begin to peg, and lay by as soon as the danger from weeds is over.

Plowing should always be done with a worn scrape or with one that has the wings cut nearly to a point, so that it cannot throw dirt. Do not disturb the peanuts after they have begun to form, and let your last cultivation be run out into the middles, flat.

HARVESTING

When should peanuts be harvested?

If they are dug too early, the nuts will shrivel up, and the crop will be light weight. If they are dug too late, after the vines are dead, most of the nuts will come off and be a total loss.

As a general rule, it is time to dig when the first nuts begin to sprout, whether the vines are turning yellow or not. There will be few nuts lost through sprouting, of course, but this will be more than made up by the nuts that have reached maturity out at the ends of the roots.

Sometimes, in wet weather, the nuts fail to sprout at all, and the vines die without giving any warning. But this is unusual, and peanuts can nearly always be safely harvested when the vines begin to turn yellow and the first sprouts appear.

Peanuts are usually plowed up. There is a peanut plow made by the C. Billups Sons Company, of Norfolk, Virginia, expressly for this purpose, but plowing can easily be done with an Avery Potato Digger plow, or an ordinary two-horse plow with the wing removed. On light sandy soils the ordinary plow will work very well, but on the heavier soils a peanut plow or potato digger plow is almost a necessity.

The peanut vines should not be left very long in the sun after they have been plowed up. Leaving in the sun causes them to curl up and lose their leaves, making them harder to stack, and lowering the value of the hay. As soon as the vines are plowed up they should be thrown into small stacks and allowed to dry for a couple of hours. Then they should be put in the stack.

To make a peanut stack, get a good pole 4 inches in diameter and 8 feet long. Set it 18 inches deep in the ground so that it cannot blow over, and nail two cross pieces, 3 or 4 feet long across the bottom, about 18 inches from the ground. These are to keep the peanuts off the ground and prevent rotting.

Now lay vines across the cleats until a base is formed, and then lay the vines on the stack with the nuts towards the pole, and build up, capping with grass



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or vines to keep out the rain. Do not throw dirt and trash or you will cut off the ventilation and the nuts will spoil.

Let the nuts stay in stacks from 4 to 6 weeks before picking. If they are not thoroughly dry at picking time, no machine can clean them from the vines properly, and they will heat, mold and rot when stored.

PICKING

Do not use a threshing machine for picking peanuts. A threshing machine will break and shell hundreds of bushels of nuts in the course of the operation, and as a cracked nut spoils immediately and a shelled nut is lost, threshed nuts are discriminated against by oil millers, and bring a lower price on the market.

The only thing to pick peanuts with is a regular peanut picker. These can pick from 8 to 10,000 bushels of nuts a day, at an approximate cost of 2c a bushel.

"Farmers," says Mr. C. J. Rambo, manager of the Edison Oil Company at Edison, Georgia, "if let alone, will buy threshing machines, and they are very objectionable; breaking and shelling the nuts, and leaving the stems so that they are absolutely unfit to plant. The action of the air kills the germinating quality when the shell is even the least bit popped.

"All of the shelled nuts go out with the pebbles in the cleaning mills and are lost. This item is a big one, and should by all means be avoided by the use of peanut pickers, built expressly for the business.

"Unless these points can be impressed upon the farmers, they will buy threshers, thinking to harvest their oats, wheat, velvet beans and peanuts all with the same machine. It will not work, however, and they should be warned against making this mistake."

If you cannot afford a picker of your own, get some of the neighbors to go in with you and buy it together—but get a picker.

As soon as the nuts are picked, store them in a dry vermin-proof place until you are ready to sell.

THE HOG AND THE OIL MILL

Peanut growers should always keep a few hogs to clean up the field after the crop has been harvested. There are always a good number of nuts left in the ground after harvesting, and a few hogs will get them out and make a good side-line profit for you. Then, too, hogs can always salvage a peanut crop to good advantage if anything goes wrong, and the crop is not worth marketing.

CONCLUSION

Every Southern farmer should make peanuts a part of his regular crop rotation. They can be grown successfully on any of the loam and sandy loam soils at a price that compares favorably with corn and cotton. They can be readily sold to the oil miller, and offer a profit only slightly below that of cotton. The nuts left in the field after harvesting offer a neat profit in by-product hogs. The hay is one of the best hays on the market.

Taking it all and all, peanuts are one of the most easily grown and most reliable crops for the South, and there is no reason why every farmer should not make his profit from them.

A list of the dealers in seed peanuts, as well as the oil mills buying peanuts, may be had by addressing the Agricultural Agent, or Industrial Agent, Central of Georgia Railway, Savannah, Georgia.



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